

AMENDMENT TO THE SPECIFICATION

Please replace the paragraph beginning on page 7, line 14 with the following:

The timing program may comprise a delay between the firing of each laser of between about 10 fs and about 5 s, between about 1 ms and about 100 ms, or between about 50 ps and about 500 ps. One or more of the excitation lines is pulsed. The pulsed excitation line may be controlled by transistor-transistor logic (TTL) ~~TTL logic~~ or by mechanical or electronic means. In one embodiment, the apparatus may generate a sequence of discrete excitation lines that are time-correlated with the fluorescence emission signals from the sample.

Please replace the ABSTRACT beginning on page 76 with the following:

The present invention provides a technology called Pulse-Multiline Excitation or PME. This technology provides a novel approach to fluorescence detection with application for high-throughput identification of informative SNPs, which could lead to more accurate diagnosis of inherited disease, better prognosis of risk susceptibilities, or identification of sporadic mutations. The PME technology has two main advantages that significantly increase fluorescence sensitivity: (1) optimal excitation of *all* fluorophores in the genomic assay and (2) "color-blind" detection, which collects considerably more light than standard wavelength resolved detection. ~~This technology differs significantly from the current state of the art DNA sequencing instrumentation, which features single source excitation and color dispersion for DNA sequence identification.~~ Successful implementation of the PME technology will have broad application for routine usage in clinical diagnostics, forensics, and general sequencing methodologies and will have the capability, flexibility, and portability of targeted sequence variation assays for a large majority of the population.